

CLAIMS

1 – A coupling antenna (4) comprising at least one loop (9) present on a support (11), and connected to a capacitor (10) present on this same support, the capacitor being mounted in parallel on both contact zones (12, 13) of the antenna, characterized in that the antenna and the capacitor are printed by gravure printing on the same support.

2. The antenna according to claim 1, further characterized in that the antenna comprises a single loop and is tuned to a medium-frequency carrier wave for transmission and reception.

3- The antenna according to one of claims 1 to 2, further characterized in that the antenna is tuned for a frequency of around 13.56 MHz.

4- The antenna according to one of claims 1 to 3, further characterized in that an insulating thickness between two electrodes of the flat capacitor is less than 10 micrometers.

5- The antenna according to one of claims 1 to 4, further characterized in that it is connected to an electronic chip (3).

6- A production process for an antenna comprising at least one loop (9) connected to a capacitor (10), the antenna and the capacitor being present on the same insulating support (11), characterized in that it comprises the following steps:

- creating a first gravure printing of a conductive ink in order to obtain an open loop of the antenna, a lower electrode (14) of the capacitor, and a

connection (15) between a first contact zone (12) of the antenna and the lower electrode,

- creating a second printing by gravure printing with a dielectric ink to cover the lower electrode with an insulating film (16),
- creating a third printing by gravure printing with a conductive ink to obtain an upper electrode (17) for the capacitor covering the insulating film, and to obtain a connection (18) between a second contact zone (13) of the antenna and the upper electrode.

7 – The process according to claim 6, further characterized in that the insulating film is obtained by successive deposition of two dielectric ink layers printed by gravure printing.

8 - The process according to one of claims 6 to 7, further characterized in that it comprises a final step consisting of:

- depositing a metallized film (19) by electrolysis onto the conductive ink layers belonging to, i.e., the open loop of the antenna, the connection between the first contact zone of the antenna and the lower electrode, the upper electrode and the connection between the second contact zone of the antenna and this upper electrode.

9 – The process according to one of claims 6 to 8, further characterized in that the surface of the capacitor to be printed by gravure printing is determined as a function of the thickness of the dielectric layer that can be deposited during the second printing.

10 – The process according to one of claims 6 to 9, further characterized in that the two contact zones of the antenna are directly connected to an electronic chip (3) with which the antenna cooperates.